

REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested.

I. STATUS OF THE CLAIMS

Claim 1 is amended herein.

In view of the above, it is respectfully submitted that claims 1-49 are currently pending and under consideration in the present application.

II. REJECTION OF CLAIMS 1-49 UNDER 35 U.S.C. § 103(A) AS BEING UNPATENTABLE OVER YOSHIMURA (USP# 5,793,917) IN VIEW OF SUZUKI ET AL. (USP# 5,629,795)

The present invention as recited in claim 1, for example, relates to a method for repairing a transmission line having a section which comprises a first fiber having a positive dispersion with respect to wavelength transmitted through the section and a second fiber having a negative dispersion with respect to wavelength transmitted through the section. More specifically, the method comprises inserting a third fiber in the section, wherein the third fiber has an absolute value of dispersion per unit of length smaller than an absolute value of dispersion per unit of length of the first and the second fibers.

Yoshimura discloses an apparatus for compensating for dispersion in a submarine optical amplification and transmission system. As shown in FIG. 17 of Yoshimura, optical repeaters 105a-105n are placed at intervals along an optical cable 103. Yoshimura discloses that dispersion compensating fiber cables 106a-106m, each of which includes a single-mode fiber having a dispersion coefficient whose sign is opposite to the sign of the dispersion coefficient of the optical cable 103, can be inserted into the optical fiber cable 103 to prevent an optical signal from being degraded (see column 2, lines 1-12).

However, Yoshimura does not teach or suggest that a section of the optical cable 103 between the intervals of the optical repeaters 105a-105n, includes a fiber having a positive dispersion with respect to wavelength transmitted through the section and a fiber having a negative dispersion with respect to wavelength transmitted through the section, like the transmission line recited in claim 1 of the present invention. Therefore, it is respectfully submitted that the teachings of Yoshimura are fundamentally different from the present invention.

Suzuki discloses an optical amplifying-repeating transmission system. In FIGS. 4 and 7, Suzuki discloses a dispersion media 4 for compensating for accumulated wavelength dispersion in a transmission line at regular intervals between optical repeaters 3.

However, similar to the teachings of Yoshimura, Suzuki does not teach or suggest that a section of the optical fiber 2 between intervals of the optical repeaters 3 includes a fiber having a positive dispersion with respect to wavelength transmitted through the section and a fiber having a negative dispersion with respect to wavelength transmitted through the section like the transmission line recited in claim 1 of the present invention. Thus, the teachings of Suzuki are also fundamentally different from the present invention.

Therefore, it cannot be suggested that Suzuki discloses a fiber to be inserted in a section of a transmission line and having an absolute value of dispersion per unit length smaller than an absolute value of dispersion per unit of length of a first and second fiber included in the same section as recited, for example, in claim 1 of the present invention. More specifically, it is respectfully submitted that it would not have been obvious to one of ordinary skill in the art to combine the teachings of Suzuki with Yoshimura to disclose the features recited in claim 1.

Claims 11, 20, 29, 42, 46 and 47 recite features somewhat similar claim 1. Thus, it is respectfully submitted that claims 11, 20, 29, 42, 46 and 47 also distinguish over the cited prior art.

Claims 2-10, 12-19, 21-28, 30-41, 43-45 and 48-49 depend from claims 1, 11, 20, 29, 42 and 47, respectively. Thus, for at least the reason that claims 1, 11, 20, 29, 42 and 47 distinguish over the cited prior art, it is respectfully submitted that claims 2-10, 12-19, 21-28, 30-41, 43-45, 48 and 49 also distinguish over the cited prior art.

In view of the above, it is respectfully submitted that the rejection is overcome.

III. CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that each of the claims patentably distinguishes over the prior art, and therefore defines allowable subject matter. A prompt and favorable reconsideration of the rejection along with an indication of allowability of all pending claims are therefore respectfully requested.

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If there are any additional fees associated with filing of this Response, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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